

REMARKS

The specification has been amended on page 1 to delete the embedded hyperlink by listing the web address, and to correct typographical errors. The specification also has been amended on page 11 to insert the U.S. application number in place of the blank line, and to correct a typographical error.

Claims 2-4, 6, 9, 11-14, 22-28 and 30-38 have been canceled without prejudice to filing one or more continuation and/or division applications. Claims 1, 5, 7, 8, 10 and 15-20 have been amended. Claims 1 and 15 have been amended to specify the elected conopeptide and precursor, respectively. Claims 5, 7, 8 and 10 have been amended to depend from claim 1 and to specify the amino acid residue by location in the conopeptide sequence. Claim 16 has been amended to refer to the O-Superfamily conopeptide as referenced in claim 1. Claim 17 has been amended to refer to the O-Superfamily conopeptide as referenced in new claim 39. Claims 18 and 19 have been amended to refer to the O-Superfamily conopeptide as referenced in claim 1 and to correct a typographical error noted by the Examiner. Claim 20 has been amended to delete certain disorders and to delete the "such as" phrases. New claims 39-43 have been added. Support for new claim 39 can be found on page 97, line 36. Support for new claim 40 can be found in original claim 17. Support for new claims 41-43 can be found in original claim 20.

It is submitted that none of the above amendments constitute new matter, and their entry is requested.

The amendment of the specification and claims obviates the objections as set forth at pages 3 and 4 of the Office Action, and the rejection of claim 20 under 35 U.S.C. § 112, second paragraph, for being indefinite as set forth at page 6 of the Office Action. Withdrawal of these objections and this rejection is requested.

Claims 18-35 were rejected under 35 U.S.C. § 112, first paragraph, for lack of written description and under 35 U.S.C. § 112, first paragraph, for lack of enablement. It is submitted that the Examiner is in error with respect to the claims as amended. Claims 22-28 and 30-35 have been canceled. Claim 18 has been amended to include only those disorders recognized in the art as being

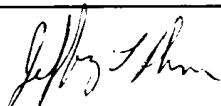
treatable by δ -conotoxins. Similarly, claims 18, 19, 21 and 29 are directed to disorders recognized in the art as being treatable by δ -conotoxins.

The present invention is directed to the O-Superfamily conopeptide δ Striatus26. As is evident by its name and by its cysteine structure, this peptide is a δ -conotoxin. As is known in the art, δ -conotoxins typically delay the inactivation of sodium channels. In the presence of such a toxin, opening of sodium channels would produce a larger influx of sodium ions and produce a greater magnitude of depolarization. Thus, there are two useful indications for such a δ -conotoxin, neurological disorders and cardiovascular disorders. First, a δ -conotoxin would be useful to treat a demyelinating disorder in which the demyelination of the neurons in a nerve or tract results in a zone of hyperpolarization. An agent, e.g., a δ -conotoxin, that promoted depolarization would be useful for allowing action potentials to pass through a demyelinated area. Second, agents that enhance depolarization are useful in increasing the force of contraction in the heart. Such an agent, e.g., a δ -conotoxin, would be useful in the treatment of congestive heart failure.

Since δ Striatus26 is a δ -conotoxin, it has the activity of other known δ -conotoxins and its specificity is thus known, and was known at the time the application was filed. Thus, δ Striatus26 is useful for treating the claimed disorders, as are other known δ -conotoxins. Since the class of conotoxin was known for δ Striatus26, i.e. a δ -conotoxin, the mode of action of δ Striatus26 was known. Therefore, the treatment methods can be extrapolated on this basis, and the claims have been limited to those treatments for which δ Striatus26 is useful. Thus, it is submitted that the presently claimed methods were adequately described in the specification and are fully enabled. Withdrawal of the two 35 U.S.C. § 112, first paragraph, rejections is requested.

In view of the above amendments and remarks, it is believed that the claims satisfy the requirements of the patent statutes and are patentable over the prior art. Reconsideration of the

instant application and early notice of allowance are requested. The Examiner is invited to telephone the undersigned if it is deemed to expedite allowance of the application.

RESPECTFULLY SUBMITTED,					
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